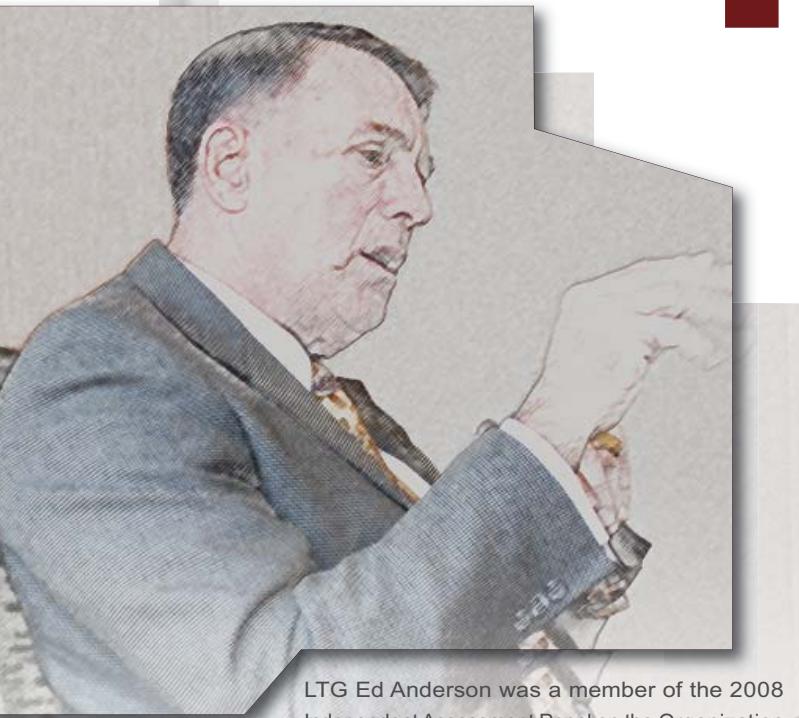




# ALLARD COMMISSION

## EXECUTIVE SUMMARY OF INDEPENDENT ASSESSMENT PANEL ON THE ORGANIZATION AND MANAGEMENT OF NATIONAL SECURITY SPACE



A black and white portrait of Lt. Gen. Edward Anderson, USAF (Ret.), wearing a suit and tie. He is looking slightly to his left with a thoughtful expression.

LTG Ed Anderson was a member of the 2008 Independent Assessment Panel on the Organization and Management of National Security Space (*also known as the Allard Commission*). He is currently serving as a Principal in Booz Allen Hamilton.

The Independent Assessment Panel (IAP) was chartered to review and assess the DoD management and organization of National Security in Space and make appropriate recommendations to strengthen the U.S. position. The panel members are unanimous in our conviction that significant improvements in National Security Space (NSS) leadership, management, and organization are imperative to maintain U.S. Space preeminence and avert the loss of the U.S. competitive national security advantage. NSS inadequacies are unacceptable today and are likely to grow, but leadership can reverse this trend.

### Scope of National Security Space

The National Security Space enterprise comprises a wide range of government and non-government organizations responsible for providing and operating Space-based capabilities serving both military and Intelligence Community needs.

- Military Space responsibilities are shared among many DoD components including the Office of the Secretary of Defense, Joint Staff, Defense Agencies, Combatant Commands, the Military Services and Defense Advanced Research Projects Agency (DARPA) activities involving Space-based capabilities for communications, early warning, weather, surveillance, Space control, and precision navigation and timing as well as launch, Space ranges, and research and development (R&D).
- Intelligence Space responsibilities include reconnaissance and related satellite systems and operations.
- The National Oceanic and Atmospheric Administration (NOAA) responsibilities include weather and remote sensing.

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- Commercial Space forms the industrial base supporting government Space programs as well as providing commercial services in the form of satellite communications and remote sensing systems.
- The National Aeronautics and Space Administration (NASA) is primarily responsible for civil Space activities; however, NASA's overall technology efforts and project management support contribute significantly to NSS activities.
- Other organizations with Space responsibilities include the Department of Energy and the National Labs, the Department of Agriculture (U.S. Geological Survey and LANDSAT), the Department of Homeland Security (National Applications Office), the National Science Foundation (Space Weather), Department of State, Department of Transportation, National Security Council, Office of Science and Technology Policy, Federal Communications Commission, and the satellite systems and activities of our allies.

The panel met with the heads [of many] of the major organizations responsible for National Security Space, along with numerous government, industry, and independent experts. The findings and recommendations reflect a widespread sense among informed experts that urgent and fundamental change is needed.

## U.S. Leadership in Space is a Vital National Advantage

Space capabilities underpin U.S. economic, scientific, and military leadership. The Space enterprise is embedded in the fabric of our nation's economy, providing technological leadership and sustainment of the industrial base. To cite but one example, the Global Positioning System (GPS) is the world standard for precision navigation and timing.

Global awareness provided from Space provides the ability to effectively plan for and respond to such critical national

security requirements as intelligence on the military capabilities of potential adversaries, intelligence on Weapons of Mass Destruction (WMD) program proliferation, homeland security, and missile warning and defense. Military strategy, operations, and tactics are predicated upon the availability of Space capabilities. The military use of Space-based capabilities is becoming increasingly sophisticated, and their use in Operation Enduring Freedom and Operation Iraqi Freedom is pervasive.

## Significant Developments since the 2001 Space Commission

The Commission to Assess United States National Security Space Management and Organization (referred to in this report as the 2001 Space Commission) alerted us to growing threats to our NSS assets. Since then, U.S. dependency on those assets has grown while comparatively little has been achieved to make them more secure. Further, a host of world and national events have "changed the landscape" in which NSS must operate. Several threat-related developments have occurred: the September 11, 2001 (9/11), attacks on the U.S. homeland and the resultant Global War on Terror; Operations Enduring Freedom and Iraqi Freedom; the rapid emergence of China as a Space power, to include substantial development in the areas of anti-satellite weapons (ASAT) and anticyber technologies; as well as the growing potential for conflict in Space.

Several organizational developments have also occurred since 2001: (1) U.S. Space Command was decommissioned and Space responsibilities were assigned to U.S. Strategic Command (USSTRATCOM), (2) Northern Command, Director of National Intelligence, and the Department of Homeland Security were established, and (3) the DoD Executive Agent for Space was relieved of authority as Director, National Reconnaissance Office (NRO).

There have also been a number of acquisition-related developments: (1) acquisition delays, cost overruns, and performance shortfalls have become routine; (2) growth in international Space

design and operation — due in large part to International Traffic in Arms Regulation (ITAR) regulations — has leveled the playing field, now allowing many nations to compete favorably with the United States in Space; and (3) the need for the United States to sustain legacy Space systems and acquisition organizations has sacrificed agility common to potential adversaries who can buy and operate that which is most modern and tailored to rapidly changing user needs.

Many of these actions are favorable to the management and organization of NSS. But many others represent a family of challenges that require firm and prompt action if the United States is to sustain a technological lead that enhances national security.

## Findings, Observations and Recommendations

The Panel observed many pockets of excellence and positive trends in the course of its study. Among these, we note the long series of successful Space launches, the growing employment and capability of Space-based commercial communications and imagery, a clearer and stronger focus of USSTRATCOM on Space, support being provided everyday to our national leadership and warfighters, and tireless efforts by those implementing our NSS programs to achieve mission success. There are many dedicated leaders, managers, and personnel who must be credited for their dedication and good work across the NSS enterprise.

Nevertheless, much of our success was realized with an NSS management and organization that was significantly different from what we observe today.

NSS performance shortfalls, vulnerabilities, and potential gaps in capabilities are emerging, and the future is of grave concern. Many of our capabilities are thin and fragile. Important Space-based capabilities are provided today by on-orbit assets that are well beyond their design lives, while many new generation satellites designed to replace them have experienced unacceptable cost and schedule growth, technical performance problems and cancellations.

Many of the necessary actions to address these adverse trends, such as those identified by the 2001 Space Commission and the 2003 Defense Science Board Study on Space Acquisition, have not been taken. Indeed, recent DoD and Intelligence Community reorganizations have further diffused responsibilities for Space. Leadership for strategy, budgets, requirements, and acquisition across NSS is fragmented, resulting in an absence of clear accountability and authority — “no one’s in charge.” Additionally, career management practices are often counterproductive, and the limited technical talent pool is insufficient.

Fundamental change is needed to correct these problems. The panel advocates top-to-bottom reform to bring stronger leadership and improved management for National Security Space. This entails actions in four areas: (1) National Space Strategy, (2) Leadership, (3) Organization and Management, and (4) government expertise for developing and acquiring Space systems.

### ***National Space Strategy***

Presidential leadership is needed to establish a common focus on Space priorities across the organizations responsible for National Security Space. Important new programs such as National Polar-orbiting Operational Environmental Satellite System (NPOESS) and the recently cancelled Space Radar program have been hamstrung by the inability to resolve interagency differences in setting achievable requirements and resource priorities. Capabilities for Space Situational Awareness and Space Control will require collaboration among several federal agencies. A national strategy with an oversight mechanism is needed to unify efforts, set priorities, establish roles and responsibilities, and adjudicate issues.

### **Recommendation 1**

The President should establish and lead the execution of a National Space Strategy that assures U.S. Space preeminence, integrates the various participants, establishes lines of authority and accountability, and delineates priorities. To implement the strategy, the President should reestablish the National Space Council, chaired by the National Security Advisor, with the authority to assign roles and responsibilities, and to adjudicate disputes over requirements and resources.

### ***Leadership***

Within the DoD and Intelligence communities, the leadership for National Security Space is currently fragmented and unfocused. Authorities and responsibilities are spread across numerous organizations, including many within the Office of the Secretary of Defense (OSD) [Under Secretary of Defense (USD)/Intelligence; USD/Acquisition, Technology, and Logistics; USD/Policy; and the Assistant Secretary of Defense (ASD)/Networks & Information Integration], USAF, USN, USA, USMC, DARPA, MDA, and NRO. Although the Secretary of the Air Force is the DoD Executive Agent for Space, its authorities have been diminished from those envisioned by the 2001 Space Commission. Moreover, as perceived by many, its stewardship of Space does not enjoy the same priority as other traditional Air Force missions. The customers who use Space capabilities observe that there is no responsible official who looks across all the available resources and capabilities to seek the best solution, whether from the military, intelligence, civilian, or commercial sector. This represents a critical need.

A strong executive is needed to integrate customer capability needs, set resource priorities, evaluate alternatives, develop and advocate investment plans and programs, and formulate and execute budgets for National Security Space. This executive must be responsive to DoD, the Intelligence Community, and other customers for Space capabilities, and must serve as a focal point for coordinating efforts across the federal government.

### **Recommendation 2**

Establish a National Security Space Authority (NSSA). The Director of NSSA should be assigned the rank of Under

**“The President should establish and lead the execution of a National Space Strategy that assures U.S. Space preeminence, integrates the various participants, establishes lines of authority and accountability, and delineates priorities.”**

Secretary of Defense for Space and also serve as Deputy DNI for Space, reporting to the Secretary of Defense and the Director of National Intelligence. [NSSA] will be the Executive Agent for Space with sole authority, responsibility, and accountability for the planning and execution of the NSS program, including acquisition. Key functions will be defining and formulating the Major Force Program-12 Budget<sup>1</sup> and serving as the focal point for interagency coordination on NSS matters. Analytical and technical support from a National Security Space Office-like organization augmented with Intelligence Community expertise will be required to effectively execute this responsibility.

#### ***Organization and Management for Providing NSS Capabilities***

There are insufficient numbers of experienced Space acquisition personnel to execute the responsibilities of the Space and Missile Systems Center (SMC) and the National Reconnaissance Office (NRO). Both organizations suffer from the long-term ill effects of the reductions in government technical personnel made during the 1990s, and neither has instituted necessary career development and management practices. Strengthened management focus is needed to identify, develop, assign, and promote acquisition personnel who are “steeped in Space.”

Lack of requirements rigor, technical performance problems, cost growth, and schedule delays have plagued U.S. Space programs. Programs such as the Future Imagery Architecture, Transformational Communications Satellite System (TSAT), and Space Radar exemplify the failures in existing leadership and management practices to define, fund, and execute new satellite programs. Strong management is needed to implement proven acquisition practices. This will require reinvigorating government capabilities for systems analysis, costing, and budgeting in order to define more realistic programs. Throughout the NSS enterprise, improved processes are needed to ensure that requirements are consistent with available resources. Continuity of key personnel is essential for program success.

At the same time, the traditional focus of the NRO on innovation has been diverted by the need to keep aging on-orbit assets operating. The needed focus on innovation can be restored by rebalancing sustainment, operations, and routine production tasks within a unified organization.

#### **Recommendation 3**

Create a National Security Space Organization (NSSO). Assign to it the functions of the NRO, the Air Force SMC, the Air Force Research Laboratories Space Vehicles Directorate, the operational functions of the of Air Force Space Command (AFSPC), and Army and Navy organizations now providing Space capability. The merged organization will report to NSSA for policy, requirements, and acquisition and AFSPC for organization, training, and equipping responsibilities. Spacecraft command, control, and data acquisition operations as well as launch operations will be NSSO responsibilities.

#### **Recommendation 4**

Change [DOD] and IC human resource management policies for Space acquisition professionals in order to emphasize technical competence, experience and continuity. Establish a career education, training, and experience path for the development of engineers and managers who are steeped in Space. Establish as the norm that Space project management personnel be in a given position for sufficient time to maximize project success — four years or more — without adverse effect upon an individual’s career. Support should be given to the current Space Cadre management and training program being implemented by the Services, as exemplified by the USAF through [AFSPC] and Air Education and Training Command.

#### **Concluding Remarks**

The panel believes that a major top-to-bottom overhaul is needed to restore the vitality of National Security Space, and regain and sustain the competitive advantages afforded the United States by our Space programs. The resulting organization would foster greater unity of effort by establishing a strategy framework at the national level, consolidating authority in the National Security Space Authority, and integrating the organization and management of Space capability providers in the National Security Space Organization. If structured as envisioned, this unified leadership and management structure for National Security Space would better serve the needs of DoD, the Intelligence Community, and other customers than does the system in place today. This call to action has the highest level of urgency. 

##### *Footnotes*

<sup>1</sup> The FY 2008 Authorization Act (Sect 8111) directs DoD to establish a Major Force program (MFP-12) for Space, and designate an OSD official to provide overall supervision of the preparation and justification of Program recommendations and budget proposals to be included in MFP-12.